Exercises 1:

1. In Jenkins Create a New Item
2. Select Free Style Job
3. Name <Change>-WIN-HELLO-WORLD
4. Description: Hello World
5. Restrict where this project can be run: Win (Select a windows node)
6. This Project is Parameterized
   a. String Parameter: USER_NAME
   b. Description: Please enter your username
   c.
   d. String Parameter 2: NUM_OF_PINGS
      i. Description: Please enter number of pings

7. Build Steps --> Add Build Steps --> Windows Batch/Commend

```
echo "Hello world!!"
echo "USER_NAME is %USER_NAME%"
echo "Hello %USER_NAME%"
echo "My job name is %JOB_NAME%"
ping 127.0.0.1 -n %NUM_OF_PINGS% 1>nul
```

- Save, run couple of time with different parameters.

1. Create a new item --> <Change>-UNIX-Hello-World
2. Create a Free Style Job
3. Check This project is parameterized → Create 2 parameters.
   a. USER_NAME
      i. Add Parameter → String Parameter
      ii. Default Value → Kangs
      iii. Description → <h3 style="color:red;">Pease enter your user name</h3>
   b. SLEEP_TIME
      i. Add Parameter → - String Parameters
      ii. Default Value: 5
      iii. Description → Please enter the sleep time in seconds.
4. Restrict where this project needs to be Run: unix (select a unix node)
5. Build Steps --> Execute Shell

```
echo "Hello World"
echo "User name is ${USER_NAME}" > info.txt
date >> info.txt
sleep ${SLEEP_TIME}s
```

6. Post Build actions
7. Archive Artifacts (*.txt)

1. Create a new item → <Change>-UNIX-GITHUB-ASTRISK-PYRAMID
2. Create a Free Style Job
3. Check This Project is Parameterized → Create 1 parameter.
    a. NUMBER_OF_ROWS
        i. Type: String Parameters
        ii. Default Value: 8
        iii. Description: Please enter number of rows
4. Restrict where this project can be run
    a. Select (or) type: unix
5. Source Code Management
    a. Repository URL: https://github.com/kpassoubady/unix_shell_scripts.git
    b. Branches to build: */master
    c. Git Executable: GIT-UNIX
6. Build Steps
    a. Add Build Step → Execute Shell
    b. Command

```
chmod +x ./astrisk-pyramid.sh
./astrisk-pyramid.sh
```

7. Click Save
8. Click Build with Parameters with different values.
9. Go to Console Output → See the output shown.

Exercise 4:

1. Create a new item → <Change>-UNIX-CHECK-PRIME-NUMBER
2. Create a Free Style Job
3. Check This Project is Parameterized → Create 1 parameter.
   a. NUM
      i. Type: String Parameters
      ii. Default Value: 8
      iii. Description: Please enter number of rows
4. Restrict where this project can be run.
   a. Select (or) type: unix
5. Build Steps
   a. Add Build Step → Execute Shell
   b. Command

```bash
#!/bin/bash

number=$NUM
i=2
flag=0
while test $i -le `expr $number / 2`
do
  if test `expr $number % $i` -eq 0
  then
     flag=1
  fi
  i=`expr $i + 1`
done
if test $flag -eq 1
then
  echo "The number $NUM is not a prime"
else
  echo "The number $NUM is Prime"
fi
```

6. Under Build Triggers → Check Build Periodically

```
TZ=PST
H/30 * * * *
```

7. General → Discard Old Builds
    a. Strategy: Log Rotation
    b. Days to keep builds: 7
    c. Max # of builds to keep: 365
8. Under Post Build Actions → Add Post-Build Action → E-mail Notifications
    a. Recipients: changeme@yourdomain.com
    b. Check Send e-mail for every unstable build
9. Under Post Build Actions → Add Post-Build Action → Slack Notifications
    a. Check Notify Build Start, Success, Aborted, Unstable, Every Failure etc.
10. Click Save
11. Click Build with Parameters and provide different values. Run few times.
12. Change the H/30 with different values and see how the build automatically runs.
13. Go to Console Output → See the output shown.